

2011 WATER SUPPLY STRATEGIES ACTION PLAN

EXECUTIVE SUMMARY

In September 2010, following a 16-month process of community involvement, the Sonoma County Water Agency Board of Directors approved nine Water Supply Strategies developed to increase water supply system reliability, resiliency and efficiency in the face of limited resources, regulatory constraints and climate change uncertainties.

The Board directed completion of the 2010 Water Supply Strategies Action Plan. The 2010 Plan described how each strategy was being carried out through specific activities and projects, identified involved parties and provided the status and budget information for each activity or project. The Board recognized that the plan is a living document and requested an update in 2011. The Water Agency expects to update its Action Plan annually.

The Water Agency is pleased to report that many activities identified in the 2010 Action Plan were successfully completed. The 2011 Action Plan identifies new activities initiated to support the strategies and also activities that are continuing or have been reprioritized.

As in the 2010 plan, the 2011 Action Plan recognizes the importance of specific stakeholder and general community involvement in successfully carrying out the strategies. Stakeholders that are working with the Water Agency on implementation of a particular action item are specifically mentioned as Involved Parties. Where community involvement is occurring or anticipated during all or part of the process, “community groups” are indicated as Involved Parties. In addition, many Action Plan activities will be reviewed or approved at Water Advisory Committee, Flood Control Zone, Agency Board of Directors and other public meetings. Members of the general public will have the opportunity to review and comment on the activities at all such forums.

Major accomplishments and changes from the 2010 Action Plan are summarized in Attachment A of the Water Supply Strategies Action Plan.

Actions Successfully Completed

The last year was marked by two major accomplishments: Completion of the 2010 Urban Water Management Plan (UWMP) and adoption of the Russian River Estuary Lagoon Management Plan EIR and implementation of the Estuary Lagoon Management Plan.

A critical item in the 2010 Action Plan, the 2010 Urban Water Management Plan (UWMP) was completed on time and filed with the State Department of Water Resources. Accordingly, it is not listed in the 2011 Action Plan. The next UWMP will be due in 2015 and work on it will be reflected in future action plans. The 2010 UWMP required both a water demand analysis and coordinated water supply analysis (both also listed in the 2010 Action Plan). The UWMP projected a future need for about 20 percent less water than the amount identified in the 2005 UWMP. Reduced demand means water conservation efforts in the Water Agency’s service area are achieving their goals and new capital projects (and accompanying rate increases) can be delayed.

A second major Action Item from 2010 – Estuary Adaptive Management – was partially completed. The “Environmental Impact Report of the Russian River Estuary Lagoon Management Plan” was approved by the Sonoma County Water Agency Board of Directors in August, 2011. The management plan was also approved. While the approval of the EIR and the plan were major accomplishments, Estuary Adaptive Management remains listed as an Action Item in the 2011 Action Plan because this new adaptive management effort must be implemented and monitored on an ongoing basis. Although a lawsuit was filed challenging the adequacy of the EIR, the new management plan is being implemented.

The Water Agency completed other projects and activities of note over the last year, including:

- **Completed the Grape Creek habitat restoration project.** This project improved coho habitat in a key Dry Creek tributary, as required by the Russian River Biological Opinion. This project restored nearly 2,000 linear feet of Grape Creek habitat, was funded by the Water Agency, constructed by Sotoyome Resource Conservation District and built with the cooperation of landowners. During the first year of monitoring, researchers found juvenile coho in and upstream of restored area. The project requires five years of monitoring, and will remain listed in the 2011 Action Plan.
- **Completed the Dry Creek Bypass Pipeline Feasibility Study.** Meeting a mandate in the Russian River Biological Opinion, the Water Agency and its consultants studied the feasibility of building a pipeline to bypass Dry Creek in order to reduce summertime flows in the creek. A preferred route (primarily following Dry Creek Road) was identified. After some water quality and engineering questions are answered in a follow-up study, the pipeline concept will be set aside until 2018, to be revived if Dry Creek habitat enhancements are unsuccessful.
- **Completed agriculture pilot studies.** These studies, conducted by Dr. Mark Greenspan, educated grape growers on improved water conservation practices for vineyard irrigation and heat suppression.
- **Completed water demand modeling.** This modeling provided an agreed upon, technical basis for the 2010 UWMP.
- **Completed a water supply analysis.** This analysis, required by the Urban Water Management Planning Act, identified regional and local supply, conservation / demand management, and recycled water projects and programs capable of meeting future needs of Water Agency customers.
- **Promoted small-scale Sonoma Valley projects.** A “Slow It, Spread It, Sink It” manual was developed and distributed through efforts of the Sonoma Valley groundwater management program. The manual was distributed at community events, and other water-saving projects were highlighted in an award ceremony and through outreach to the press.
- **Adopted a Water Agency energy policy.** In March, the Water Agency’s board of directors adopted a proactive energy policy. As a result, Strategy Seven (Take Advantage of Energy & Water Synergies) was rewritten and new actions to carry out the strategy were added and 2010 actions were reprioritized.

Significant Progress

Significant progress was achieved for several 2010 Action Plan items, that will continue to be listed in the 2011 Action Plan, including:

- Drafts were completed and released for the Dry Creek Habitat Enhancement Feasibility study. This study will be completed after all comments have been received from National Marine Fisheries Service.
- A \$1.6 million grant was received for the Sonoma Valley County Sanitation District recycled water storage and pipeline project. Construction is underway on a storage pond and a recycled water pipeline. Design is in progress on a recycled water pipeline that will help restore the Napa Salt Marsh.
- The Water Agency and Water Contractors funded the Sonoma-Marin Saving Water Partnership and launched a comprehensive public outreach campaign.
- Environmental analysis and modeling are well underway for the Fish Flow project.
- A \$1 million grant was received for Copeland Creek flood control/groundwater recharge project.
- Progress is ongoing in completing Sonoma Valley groundwater management projects. Monitoring wells were installed, a seepage run study was conducted, groundwater levels are being monitored and public outreach conducted.
- Santa Rosa Plain groundwater management activities continued, with community outreach and ongoing education. At the recommendation of a stakeholder steering committee the Water Agency board directed that a groundwater management plan be initiated. The Water Agency received \$250,000 in grant and state funding to support these valuable groundwater management activities.
- The state-required California Statewide Groundwater Elevation Monitoring program has started in designated basins, with the initial water levels slated to be measured this fall.

- Several hazard and operational reliability projects were funded and initiated, improving the reliability of the Water Agency's facilities. These projects include the earthquake fault crossing mitigation at Rogers Creek, the Russian River and Mark West Creek; liquefaction mitigation for Collectors Three and Five, isolation valve replacement; and installation of flow monitors.
- A new long-term financial model is functional, has been refined and is now being used.

Reprioritization

Several items listed in the 2010 Action Plan have been reprioritized, based on changed conditions, funding opportunities or loss, or other circumstances. Projects falling into this category include:

- **Two Biological Opinion tributary projects.** The Mill Creek fish passage project has been dropped due to key landowner opposition. A fish passage project on Crane Creek has replaced it and is slated for construction in fall 2011. The Wallace Creek fish passage project has been delayed due to right-of-way issues.
- **Dry Creek Agriculture Users Agreement.** Implementing this agreement is now listed as a near-term rather than an immediate action, reflecting the need to prioritize other Dry Creek activities.
- **New focus on natural hazard and operational reliability projects.** Several natural hazard reliability projects were moved into the immediate action category from the near term category so they are in a stronger position to secure FEMA funding. In addition, an emergency response plan for a critical water supply facility, the Mirabel inflatable dam, is being developed and has been added.
- **Revenue modeling.** An alternative revenue model study will begin this winter and is now an immediate action.
- **Water use data.** Water use has dropped dramatically in recent years. Annual collection of information regarding water gross demand, conservation and source of water use is now an immediate action, reflecting the need to better understand trends.
- **Energy items.** The ISO certification process the Water Agency is engaged in is now listed in Strategy Nine, rather than Strategy Seven to better reflect the organizational benefits associated with the ISO process.
- **Farms to Fuel.** A "chicken manure fuel cell project" was mentioned in the 2010 plan, but is now called out as an immediate action item, reflecting success in moving this innovative project forward.

New Actions

Several items were added to the 2011 plan to reflect new Water Agency initiatives, areas of focus or funding opportunities, including:

- **Leak detection study.** Millions of gallons of water could be saved each year by reducing leaks. Using advanced analytics made possible through work with IBM, the Water Agency will engage in a "proof of concept" study to evaluate the possibility of leak detection in the transmission and distribution systems. IBM is providing about \$2 million of funding for this project, and it is listed in the 2011 Action Plan as an immediate action.
- **Engineering & Water Quality Analysis of Dry Creek Pipeline.** The Dry Creek Pipeline Feasibility Study raised questions regarding water quality challenges with getting the water from the pipe into the Russian River or Dry Creek. The Water Agency will begin to evaluate potential water quality issues related to the pipeline outlet facility. This engineering/water quality analysis would begin within three years, and is listed as a new near-term action item.
- **Evaluation of collector wells.** The oldest collector wells have been operating for four decades and must be analyzed to ensure continued performance. If the analysis demonstrates a need, a plan will be developed to increase reliability of these facilities. This action is listed as a new immediate action.
- **Emergency Response Plan.** An up-to-date emergency response plan is critical to the Water Agency's ability to provide water in an earthquake, fire or other emergency. As part of the evaluation needed to

seek ISO certification, the Water Agency recognized it needed to update and better document its emergency response plan. This update is anticipated in 2012 and is listed as an immediate action item in the 2011 Action Plan.

- **New operational reliability projects.** Operational reliability is as important as hazard reliability. Accordingly, projects such as the Cotati Reservoir 3 and the Petaluma Aqueduct cathodic protection have been initiated and are therefore listed as immediate actions.
- **Evaluation of regional and local projects.** When they worked together on their respective 2010 UWMPs, the Water Agency and Water Contractors recognized the need to better coordinate local and regional projects to maximize efficiencies and take advantage of financing opportunities. They have begun work on a process for this coordination and this effort is listed as a new immediate action item.
- **Community Choice Aggregation.** Responding to growing concern about energy costs, future reliability and greenhouse gas emissions, the Water Agency board of directors directed staff to hire a consultant and assess the feasibility of a community-based power exchange, with a focus on renewable energy. Based on the results of the study, the board directed staff to take follow-up steps and report back in six months. This effort is listed as a new immediate action item.
- **Through PWRPA, procure all renewable power produced from Warm Springs Dam hydropower and Sonoma County landfill power facility.** Although the Water Agency produces renewable power at Warm Springs Dam, it sells the power to PWRPA. Sonoma County also sells power produced at its landfill to PWRPA. Although the Water Agency is a PWRPA customer, currently, PWRPA procures all the power from these sources and divides the cost and environmental attributes to PWRPA members. When the Water Agency buys PWRPA power now, the power portfolio includes WAPA hydropower and open market power. If the Water Agency is, instead, able to obtain the “rights” to WSD and Meacham landfill power, rather than sharing it with PWRPA customers, the Water Agency’s efforts to achieve carbon free water will be achieved. This effort is listed as a new immediate action item in the 2011 Action Plan.

For more information, please refer to Attachment A of the Water Supply Strategies Action Plan, which summarizes the changes to all 2010 Immediate Actions. The 2011 Update provides additional information and details on all actions. These documents can be found online at www.sonomacountywater.org/water-supply-strategy